

IN THE CLAIMS:

1. (Currently Amended) A method for treating an unpackaged biological liquid[[s]], ~~particularly milk or its derivatives,~~ having a microbacterial and spore content and an initial concentration of fatty matter, using an apparatus which includes separating means, heating means, preheating means, irradiating means, cooling means, and mixing means, comprising the following operative steps:

a) separating said biological liquid into a ~~fatty~~first fraction having a higher concentration of fatty matter compared to said initial concentration and a ~~non-fatty~~second fraction having a lower concentration of fatty matter compared to ~~the~~said initial concentration using said separating means;

b) ~~complete conditioning heat treatment of~~heat treating said ~~non-fatty~~second fraction using said heating means;

c) cooling said ~~non-fatty~~second fraction to a temperature close to ~~the~~a storage temperature using said cooling means;

d) preheating said ~~fatty~~first fraction to a predetermined temperature using said preheating means;

e) irradiating said preheated ~~fatty~~first fraction with electromagnetic radiation for a predetermined time using said irradiating means;

f) cooling said ~~fatty~~first fraction to a temperature close to ~~the~~said

storage temperature using said cooling means, and;

g) ~~mixing said fatty and non-fatty fractions, which have been treated and cooled separately, so as~~ first fraction from step (f) and said second fraction from step (c) to reconstitute said a biological liquid treated at a temperature close to the storage temperature using said mixing means.

2. (Previously Presented) A method according to Claim 1, wherein said electromagnetic radiation is in the radio-frequency range.
3. (Previously Presented) A method according to Claim 2, wherein the radio frequency of said electromagnetic radiation is less than 1 GHz.
4. (Previously Presented) A method according to Claim 2, wherein said irradiation time in said step e) is between 1 second and 5 seconds.
5. (Currently Amended) A method according to Claim 4, wherein said heat treatment step b) comprises sterilisation and the preheating temperature of the fatty fraction is between 140°C and 150°C[[,]].
6. (Previously Presented) A method according to Claim 4, wherein said heat treatment step b) is pasteurisation and the preheating temperature is between 70°C and 75°C.
7. (Previously Presented) A method according to Claim 4, wherein said heat treatment b) comprises heating to temperatures of between

90°C and 125°C and the preheating temperature is between 115°C and 125°C.

8. (Previously Presented) A method according to Claim 4, wherein said heat treatment step b) comprises heating to temperatures of between 80°C and 100°C, and the preheating temperature is between 85°C and 95°C.

9. (Currently Amended) A method according to Claim 1, wherein ~~including after~~ said irradiation step e), ~~it comprises a further step h) of exposuresubjecting the first fraction to the predefined said predetermined~~ temperature for a specific time.

10. (Currently Amended) A method according to Claim 9, wherein said specific time is between 2 and 5 seconds.

11. (Currently Amended) A method according to Claim 1, wherein said steps (a)-(g) are performed in conditions of continuous flow of the biological liquid to be treated.

12. (Currently Amended) A method according to Claim 1, wherein said ~~fatty~~ first fraction contains substantially all the fatty matter of the biological liquid ~~to be treated~~.

13. (Currently Amended) A method according to Claim 11, wherein said ~~fatty~~ first fraction is about 10% by weight of the biological liquid.

14. (Currently Amended) An apparatus plant for treating an
unpackaged biological liquid[[s]] in accordance with the steps of claim 1
comprising:

a) means for separating said biological liquid having an initial
concentration of fatty matter into a fatty-first fraction having a higher
concentration of fatty matter and a non-fatty-second fraction having a
lower concentration of fatty matter compared to the said initial
concentration in said logical of fatty matter liquid[[.]];

b) means for heat treating said non-fatty-second fraction;

c) means for cooling said non-fatty-second fraction to a
temperature close ~~the~~ to a storage temperature;

d) means for preheating said fatty-first fraction to a predefined
temperature;

e) means for irradiating said fatty-first fraction with
electromagnetic irradiation;

f) means for cooling said fatty-first fraction to a temperature close
to a storage temperature; and

g) means for mixing said first and second fractions, ~~which have~~
~~been individually treated and cooled, so as to reconstituted the~~ provide a
treated biological liquid.

15. (Currently Amended) A plant according to Claim 14, wherein said
irradiation means comprises an oscillator operating in the range of radio
frequencies ~~low~~ below 1 GHz.

16. (Currently Amended) A plant according to Claim 14, wherein said heat treatment means ~~for heating~~ heating said ~~non-fatty~~ second fraction to a temperature of between 60°C and 150°C.

17. (Currently Amended) A plant according to Claim 14, wherein said preheating means comprises means for heating said ~~fatty~~ first fraction to a temperature of between 60°C and 150°C.

18. (Currently Amended) A plant according to Claim 14 comprising means for ~~keeping~~ maintaining said ~~fatty~~ first fraction at the predefined temperature for a time.

19. (Previously Presented) A method according to claim 4, wherein said irradiation time is about 1.5 seconds.

20. (Previously Presented) A method according to claim 5, wherein the heat treatment temperature is about 145°C.

21. (Previously Presented) A method according to claim 6, wherein the preheating temperature is about 72°C.

22. (Previously Presented) A method according to claim 7, wherein the preheating temperature is about 120°C.

23. (Previously Presented) A method according to claim 8, wherein the preheating temperature is about 90°C.

24. (Previously Presented) A method according to claim 10, wherein the time is about 3 seconds.